

**DESCRIPTIONS OF A NEW SPECIES OF *OXYCERA*
MEIGEN AND THE MALE OF *O. LII* YANG AND
NAGATOMI FROM SOUTHWESTERN CHINA
(DIPTERA: STRATIOMYIDAE)¹**

Zaihua Yang,² Maofa Yang,³ and Lianmeng Wei⁴

ABSTRACT: *Oxycera guizhouensis* sp. nov. from Guizhou Province and the male of *O. lii* Yang and Nagatomi from Sichuan and Yunnan Provinces are described. All essential diagnostic characters are figured and possible relationships of both taxa are briefly discussed.

KEY WORDS: Diptera, Stratiomyidae, *Oxycera*, new species, *Oxycera lii*, China

A review of the Chinese *Oxycera* species, including 13 species, was published by Yang and Nagatomi (1993). The number of the ascertained species corresponds with the recent world catalogue of the family (Woodley 2001), but this is likely to increase, e.g. at least the occurrence of some species from Japan (cf. Nagatomi et al., 2001), eastern Russia (Pleske 1925, Szilády 1941) and even from the Oriental Region (Brunetti 1920, 1923, Kertész 1923, Séguy 1934) may be expected in China. During recent study, we discovered a new species which is described here as *O. guizhouensis* sp. nov. Also, we discovered the male of *O. lii* Yang and Nagatomi (1993). The number of Chinese *Oxycera* species is now 14.

SYSTEMIC ENTOMOLOGY
***Oxycera lii* Yang and Nagatomi, 1993**
Description of the adult male
(Figs. 1-8)

Description: Male: body length 3.5 mm, wing length 3.0 mm.

Head hemispherical, wholly shining black, about 1.1 times higher than long in profile and 1.4 times higher than broad in frontal view. Hairs on head pale, ocellar tubercle and a longitudinal line between eyes without hairs. Eyes almost bare, brown, slightly darker in lower part. In frontal view, width of one eye as long as half distance from antenna to median ocellus and equal to width of frons just above antenna or 2/3 of face width at lowest point. Ocellar tubercle 1.5 times longer than width, upper frontal triangle in front of medial ocellus half as broad as ocellar tubercle. Distance from antenna to medial ocellus twice as long as dis-

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² Key Laboratory for Plant Pest Management of Mountainous Region, Guizhou Province. Institute of Entomology, Guizhou University, Guiyang 550025, P.R. China. Email: yangzaihua008@126.com.

³ Key Laboratory for Plant Pest Management of Mountainous Region, Guizhou Province. Institute of Entomology, Guizhou University, Guiyang 550025, P.R. China. Email: yangmaofa68@hotmail.com
Corresponding author.

⁴ Guizhou Anshun Center for Disease Control and Prevention, Anshun 561000 P.R. China. Email: wlmcdc@126.com.

tance between antenna and proboscis. Antennae (Fig. 2) yellowish brown, scape and pedicel cup-shaped, with sparse yellow hairs, flagellum black with pale pubescence, round sensory pits well visible, arista subapical. Relative length of two basal antennal segments and flagellum (without arista) as 1:1.2:3 and their relative width as 1:2:2. Arista about as long as rest of flagellum. Face black, with dense pale lateral hairs on upper part, middle hairs sparse. Underside of head with long hairs. Clypeus 1.7 times as long as width, about as wide as lowest face. Proboscis yellow, with sparse yellow pile.

Thorax (Fig. 4): mostly black, with shining and pale hairs; postpronotal calli yellow; scutum with two pairs of small yellow median spots, lateral spot in front of each wing and one pair of yellow spots on postalar calli, anepisternum mostly yellow. Scutellum (Fig. 3) yellow, with yellow hairs, spines slightly divergent, yellowish brown and black on tip, about 1.5 times longer than scutellum. Wing slightly yellowish brown, without vein R_4 , veins wanting at posterior margin. Leg yellowish brown, only hind tibia, mid and hind 3, 4 tarsomeres dark brown. Haltere stem yellowish brown to brown, knob yellow.

Abdomen. Dorsum dark with yellow pattern, pale haired; tergite 1 black with a narrowly yellow anterior margin, tergites 3-4 with a larger X-shaped black spot, remains of dorsum yellow but black apically (Fig. 5); venter wholly black. Male genitalia species-specific (Figs. 6-8): posterior margin of genital capsule convex, not bilobed, cerci relatively short and broad in lateral view, gonocoxal apodemes overreaching proximal margin of genital capsule. Aedeagal complex relatively larger, trifid, all three tubes almost parallel-sided.

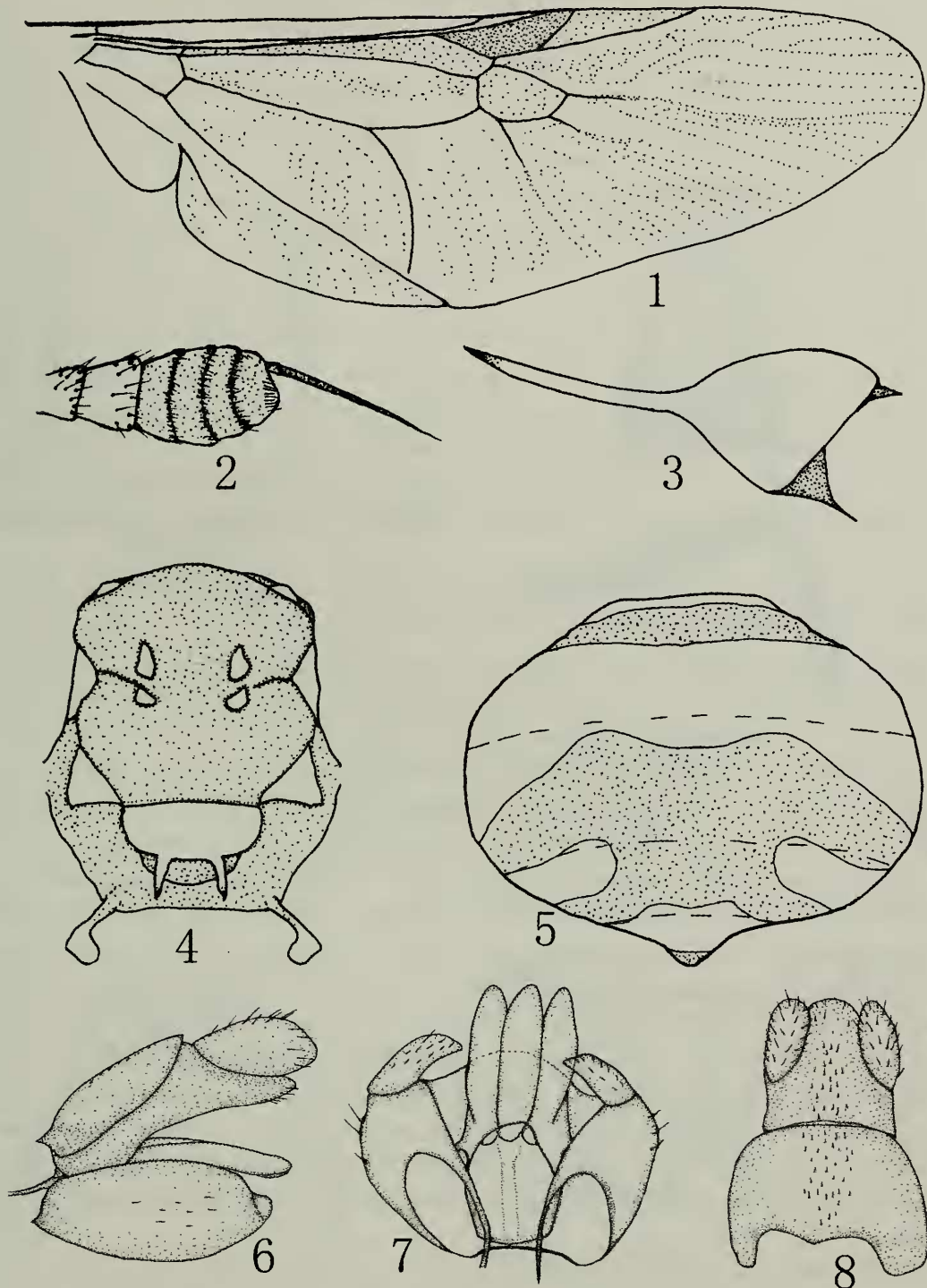
Female described in detail by *O. lii* Yang and Nagatomi, 1993.

Material examined (2♂♂): 1♂, Kangding (2700m), Sichuan Province, 10.VIII. 2005; 1♂, Nanping (2500m), Yunnan Province, 14.VIII. 2006; Tang Yi leg.

Distribution: Yunnan, Guizhou, Sichuan.

Remarks. The female holotype was collected at Huaxi, Guizhou Province and the species is thus known to occur in the three Chinese Provinces – Guizhou, Sichuan, and Yunnan. Both sexes are characterized by the unique feature among the Chinese *Oxycera* species, i.e. the absence of the vein R_4 on the wing (Fig. 1). Also the shape of the antenna and the pattern of the thorax are very similar, with yellow postpronotal calli, four symmetrical yellow median spots near the transverse suture, lateral spots just in front of suture and yellow spots on postalar calli (Fig. 4). The scutellum is apparently yellow in the male and darkened in the basal half of the female, the yellow poster-upper part of the female anepisternum is distinctly extended in the male. The legs are predominantly yellow though rather yellowish brown in the male, but the broad median part of the female hind tibia is somewhat darker. In the female the yellow abdominal pattern consists of the central spot on tergite 2, two pairs of oblique lateral markings on tergites 3 and 4, and an apical spot. All these spots are well separated in the female but the central spot and the lateral spots on tergite 3 are fused into a broad transverse band occupying all tergite 2 and large area of tergite 3 in the male (Fig. 5). The male

genitalia differs from all the other known males in the target area by the shape of the posterior margin of the genital capsule, which is simply convex, without any medial incision (Fig. 7).



Figures 1-8: *Oxycera lii*, male: 1. wing; 2. antenna, inner view; 3. spine of scutellum, lateral view; 4. thorax, dorsal view; 5. abdomen, dorsal view; 6. genitalia, lateral view; 7. genital capsule and aedeagal complex, dorsal view; 8. cerci, proctiger and epandrium, dorsal view.

Oxycera guizhouensis sp. nov.

(Figs. 9-16)

Description: Male: body length 6.5 mm, wing length 5.0 mm.

Head elliptical in frontal view, shining black, with pale hairs, but ocellar tubercle and a longitudinal line between eyes without hairs. Eyes brown, with sparse but distinct hairs. Head 1.3 times higher than long in profile and twice wider than high in frontal view; width of one eye at mid line 1.4 times as long as distance from antenna to median ocellus in frontal view, or twice as long as width of frons just above antenna, or 1.2 times as long as face at lowest point in frontal view. Ocellar triangle 1.3 times longer than width; upper frontal triangle distinct, half as broad as ocellar triangle; distance from antenna to median ocellus 1.6 times longer than distance from antenna to proboscis. Frontal triangle and upper face with dense pale tomentum laterally. Antenna: yellowish brown to dark brown, scape and pedicel cup-shaped, with sparse brown hairs, flagellum tinged with yellowish brown. Relative length of two basal antennal segments and flagellum (except arista) as 1:1:2 and their relative width as 1:1.8:1.8; arista twice as long as rest of flagellum. Palpus black, distinctly one-segmented; proboscis yellow, with sparse long yellow hairs. Clypeus 1.7 times as long as wide, about width of the lowest face.

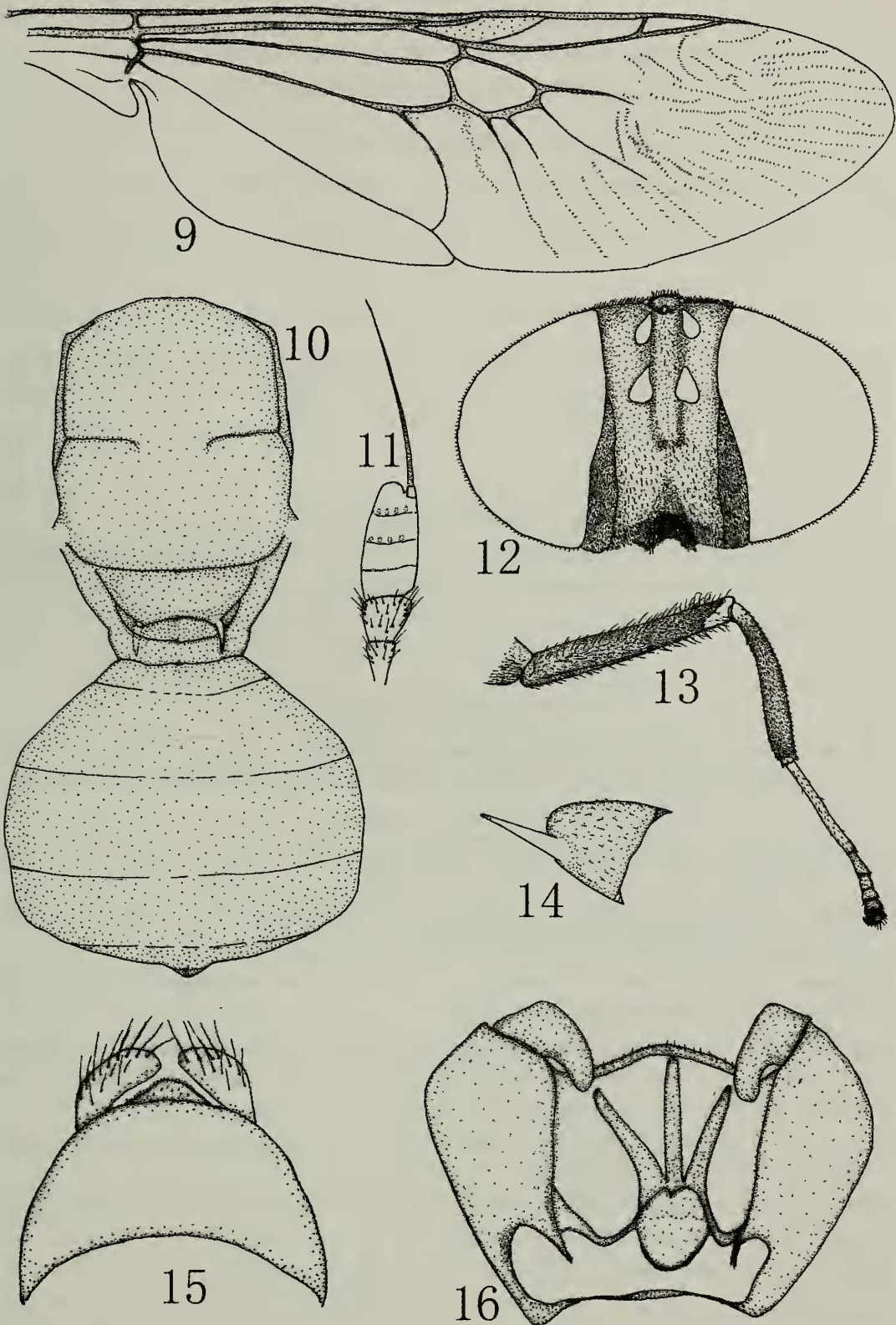
Thorax (Fig. 10): wholly black, with pale hairs. Scutellum (Fig. 14) black, spines on scutellum yellowish brown but black on tip; spines as long as 2/3 of scutellum. Wing hyaline, veins brown; distance from R_{2+3} to R_4 is 1.3 times of distance from R_4 to R_5 . Legs haired and black but apices of femora yellowish brown, both ends of tibiae yellowish brown and mid and hind 1-2 tarsomeres white with darkened apex. Haltere stem yellow brown, knob creamy green.

Abdomen (Fig. 10): wholly black, with pale hairs, Male genitalia species-specific (Figs. 15-16): Aedeagal complex divided, relatively short and thin.

Female: body length 6.4 mm, wing length 5.4 mm. Similar to male except as follows: Head pale haired; eyes widely separated, with broader postocular rim which is wholly black. Frons with two pairs of yellow spots, the upper spots close to ocellar tubercle (Fig. 12). Width of one eye at mid line 0.8-0.9 as long as distance from antenna to median ocellus in frontal view, or 1.1 as long as frons just above antenna, or 0.7 as long as width of face at lowest point in frontal view. Ocellar triangle as long as width; width of frons above antenna from frontal view is 2.2 times longer than width of ocellar tubercle; clypeus 1.3 times longer than width, about as wide as lowest face. Thorax: Postpronotal calli with a pair of small yellow spots; spines on scutellum vestigial, only with a pair of dark brown spots.

Type Data: Holotype ♂, paratype 1♀, Maolan (600-650m), Guizhou Province, 14. VI. 2006, Yang Zaihua leg, deposited in Institute of Entomology, Guizhou University.

Etymology: The name refers to the type locality.



Figs. 9-16: *Oxycera guizhouensis* sp. nov.; 9. wing; 10. thorax and abdomen, dorsal view; 11. antenna, inner view, ♂; 12. head, frontal view, ♀; 13. hind leg, inner view; 14. spine of scutellum, lateral view ♂; 15. ♂ cerci, proctiger and epandrium, dorsal view; 16. ♂ genitalia, dorsal view.

Remarks: *O. guizhouensis* sp. nov. resembles by its predominantly black body colour and hyaline wing membrane especially *O. chikuni* Yang and Nagatomi, 1993, and *O. guangxiensis* Yang and Nagatomi, 1993, known from China and *O. kusigematii* Nagatomi, 1977, described from Japan. The male of *O. chikuni* is not known and the female differs by the elongate yellow spot at the upper part of the postocular rim and the colour of the femora being predominantly yellow with a median darkened ring whereas the postocular rim of the new species is completely black and the femora are predominantly dark. The essential difference of *O. guizhouensis* sp. nov. from both rest species may be demonstrated by the species-specific characters of the male genitalia (Figs. 15-16): the posterior margin of the genital capsule is slightly convex, the gonostyli are relatively slender and the gonocoxal apodemes very short. The tubes of the trifid aedeagal complex are unusually slender and markedly divergent.

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